

ENVIS CENTRE
AVIAN ECOLOGY

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ENVIS Newsletter:
Avian Ecology
Vol. 12, No. 2 (2007)

ENVIS

ENVIS (Environmental Information System) is a network of subject specific centers located in various institutions throughout India. The Focal Point of the present 78 ENVIS centres in India is at the Ministry of Environment and Forests, New Delhi, which further serves as the Regional Service Centre (RCS) for INFOTERRA, the global information network of the United Nations Environment Programme (UNEP) to cater to environment information needs in the South Asian sub-region. The primary objective of all ENVIS centres is to collect, collate, store and disseminate environment related information to various user groups, including researchers, policy planners and decision makers.

The ENVIS Centre at the Bombay Natural History Society was set up in June 1996 to serve as a source of information on Avian Ecology and Inland Wetlands.

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Cover: Indian Golden Oriole
Oriolus kundoo
by Kedar Bhide

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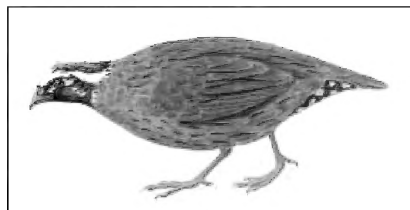
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National News

Feathered friends



PIC: BNHS LIBRARY

More than 250 Darters out of the 4,000 left in the world are breeding in a single village in Kerala, thanks to the community initiatives. For decades, Aloor village in Thrissur district of Kerala has been a breeding ground for many avian species, but never Darters. It was only in 1999 that six nests of Oriental Darters *Anhinga melanogaster* were seen in the village for the first time. This number increased to 30 by 2005 and has been rapidly increasing since then. So much so, these near cousins of Cormorants, which were seen breeding earlier for only three months in the village are now doing so for nine months, from April to December. According to the BirdLife International, Darters are Near Threatened species of water birds due to habitat destruction and large scale poaching for food or fun. The Kole wetland near the village harbours the third largest bird population in India as it is an easy source of food and habitat. The Kole wetland had long ago lost most of the habitat trees to cash plantations. Many birds had to look for trees in the villages around, where they became more vulnerable to

poaching. Besides, many times their habitat trees in the village were cut by locals to prevent the stench that emanates from defecation and rotting remains of fallen fish from the nests above. Kole is a public property and is yet to get the status of a wildlife reserve under the Wildlife Protection Act. In 2001, many trees in the village railway station compound were cut down during the nesting season for line electrification. Hundreds of nests, including those of Darters, fell down and a large number of chicks died. It took a lot of effort for a few to make everyone understand the importance of protecting these birds. The village Panchayat made special efforts to help villagers understand the ecological importance of the birds and the wetlands around. Thus, when in 2003, the Kerala State Electricity Board came up with plans to cut down more trees in the nesting season, the villagers got together and secured a stay order from the Kerala High Court. The villagers are fully aware of the endangered status of Darters and stand strong to protect them. They have also sent a petition to the President of the country to help protect the Darters in the village. To help these birds more, the nature club of IHRD Polytechnic in the village has planted 100 trees in and around their campus in the past two years. At present there are 62 Darter nests in the polytechnic campus alone. The Aloor Panchayat has also passed a resolution requesting the State government to declare 100 acres of its Kole wetland as a community reserve wherein Kole will have all the privileges of a wildlife sanctuary or a national park and will also have the additional advantage of local community participation as it will become statutory for the Government to set up a "participatory management" involving the local community. The village understands the many added benefits of having a wildlife reserve. Getting the status of a protected reserve under the Wildlife Protection Act would make it easy to protect the birds besides maintaining the water table level of the area. In the near future the Panchayat wants to start a bird information centre in the Panchayat Office.

Source: <http://www.hindu.com/mag/2007/07/22/stories/2007072250120700.htm>

National News

Courser's habitat under threat again

A recent report from Bombay Natural History Society (BNHS) says that the last known habitat of the critically endangered and enigmatic bird of Andhra Pradesh — Jerdon's Courser (*Rhinoptilus bitorquatus*) — could once again come under threat. The Irrigation Department's latest realignment plans of the Telugu Ganga Canal project, has the potential to wipe away 89 hectares of shrub jungle, typical habitat of the bird, near the sites where the bird was spotted in the recent years at Sri Lankamalleswara Sanctuary, Kadapa. The report says that the proposed realignment plans for the canal, if implemented, would cut across the scrub jungle habitat and that the realignment is precariously close to the boundary of the Sri Lankamalleswara Sanctuary, Kadapa, as well as the sites where the Courser's presence was recorded regularly between 2000-06. The report goes on to add that the canal alignment has to be shifted so that it would border the scrub jungle habitat without actually changing the length of the canal, which is 2.2 km. The canal alignment may be shifted so that the only place of this bird can be saved for posterity.



PIG: SIMON COOK

Officials said that the new alignment being pushed by the Irrigation Department, during the course of the negotiations, would further risk the habitat of the Courser. The expert committee says that it has given an alternative proposal of alignment and feels that their proposal would protect the bird's habitat. If the matter is not solved, it intends to submit its report directly to the Central Empowered Committee (CEC) of Supreme Court. Thanks to the intervention of the CEC earlier this year, the Department had agreed to re-route the canal, to protect the last known habitat of this bird, the numbers of which hover between 20 and 80. The CEC had directed the stakeholders, including the BNHS, wildlife officials and the Irrigation Department, to chalk out a 'via media' to save the bird and its habitat. The bird is not found anywhere else in the world

Source: <http://www.thehindu.com/2007/08/19/stories/2007081957342000.htm>

International News

Globally threatened birds pay for their sex

A new study published in the leading ornithological journal **IBIS** has uncovered that for the vast majority of bird species, there are more males than females. The discovery suggests that populations of many of the world's threatened birds could therefore be overestimated, because scientists often base population estimates on counts of males. Males are usually more brightly plumaged than females and the males of many species sing to attract mates and defend territories making them easier to hear and therefore count. Researchers then take this as an estimate of the number of breeding pairs, critically assuming an equal number of males and females in the population. This means that many of the world's rarest species may be much closer to extinction than we previously thought, because the number of females is lower than the number of males. The only possible explanation is that females do not

live as long as males. As generations grow older, they become increasingly dominated by males as more females die off. One possible explanation for this higher female mortality is that females may experience higher physiological stress. In many bird species females are the dispersing sex while the males stay closer to home and in migratory species it is often the females that fly the furthest despite being smaller in size. One possibility lies in the fact that many threatened species are endangered because of introduced predators, which have been known to kill females when they are incubating eggs in the nest. Because most bird population estimates are likely to be overestimates, it is crucial that researchers take the sex ratio into account when devising strategies for saving globally threatened species.

Source: http://www.birdlife.org/news/pr/2007/08/sex_ratios.html

Lapwing finds some friends

More than 3,000 critically endangered Sociable Lapwings *Vanellus gragarious* have been found in the Ceylanpinar district of south-eastern Turkey after a satellite tag was fitted to one of the birds migrating from breeding grounds in Kazakhstan. The Sociable Lapwing is one of the rarest birds on earth and has been suddenly found in large numbers. The tracked Lapwing had flown more than 2,000 miles from its nesting site, where numbers of the species have plunged following the collapse of Soviet farming. The bird flew north of the Caspian Sea, then down through the Caucasus and south into Turkey. Other birds including Geese, Albatrosses and Bald Ibises have been fitted with satellite tags before but the Sociable Lapwing is the smallest bird yet to carry such a tracking device. It shows how important both Kazakhstan and Turkey have become for the survival of this species. Only 200 pairs of Sociable Lapwing were thought to remain in 2003 when the bird was classified as critically endangered, the highest level of threat there is. Researchers from the Turkish conservation group Doga Dernegi found a total of 3,200 Sociable Lapwing in Ceylanpinar. They were following the co-ordinates provided by satellites for

the bird that had flown from Kazakhstan. The next step is to protect the bird, both on its breeding grounds and at all the key sites on its migration route. Source: <http://www.rspb.org.uk/news/details.asp?id=tcn:9-172984>



PIC: BNHS LIBRARY

International News

Asian rare bird first to benefit from world's largest bird conservation programme

BirdLife International's new initiative 'BirdLife Species Champions' whereby 'Champions' are being sought for Critically Endangered birds, to fund identified conservation programmes that aims to save all 189 of the world's Critically Endangered birds from extinction. Bengal Florican *Houbaropsis bengalensis*, one of the world's most threatened birds, will be first to benefit from this new conservation approach. With less than 1,000 individual birds remaining, Bengal Florican had been given just five years before disappearing forever from its stronghold, the floodplain of the Tonle Sap Lake in Cambodia. The 'Species Champion' for Bengal Florican will be the British Birdwatching Fair 2007, contributing toward conservation works being undertaken by BirdLife 'Species Guardians' working in Cambodia. Since being re-discovered in Cambodia in 1999, Bengal Florican numbers have plummeted due to unregulated land conversion for intensive agriculture. The BirdLife Species Champions funding will contribute toward the government-approved 'Integrated Farming and Biodiversity Areas' programme in Cambodia, encouraging communities to favour 'low-impact' traditional



PIC: BNUIS LIBRARY

farming techniques over intensive non-sustainable dry-season rice production. The BirdLife Species Champions initiative will be launched officially at this year's British Birdwatching Fair at Rutland Water (August 19-21), co-organized by the RSPB (Royal Society for Protection of Birds) and the Leicestershire and Rutland Wildlife Trust. Three other Critically Endangered birds will also benefit are Belding's Yellowthroat (Mexico), Djibouti Francolin (Djibouti), and Restinga Antwren. Source: http://www.birdlife.org/news/pr/2007/08/species_champion.html

Bird conservation success stories

As the 2007 IUCN Red List of Threatened Species reveals the scale of the escalating extinction crisis occurring across the planet, an unobtrusive parakeet from Mauritius is showing that, with funding and dedicated fieldworkers, species can recover from the brink of extinction. The IUCN Red List of Threatened Species reveals that unprecedented numbers of species are now threatened with extinction. For birds, the Red List is maintained by BirdLife International, who report that 1,221 species are considered threatened with extinction. The overall conservation status of the world's birds has deteriorated steadily since 1988, when they were first comprehensively assessed. 189 birds are now listed as Critically Endangered - the highest threat category. Yet even among these severely threatened birds is a small number, whose survival odds are improving, providing case-studies to others for how species can be successfully saved. The most encouraging recovery seen in the 2007 IUCN Red List of Threatened Species was Mauritius (Echo) Parakeet, once dubbed "the rarest parrot on Earth". Mauritius Parakeet *Psittacula eques* was once down to just 10 birds in the 1970s, but the World Conservation Union (IUCN) now announce its move from Critically Endangered to Endangered. In the last century

the species has suffered from a multitude of threats all of which contributed to substantial declines; yet concerted actions, involving local and international conservationists, the government and people of Mauritius -with support from an array of international funders- has seen the species' chances of survival improve. For Mauritius Parakeet, these threats included introduced nest predators, decline of the native fruits on which the parakeets feed and a loss of suitable nesting sites. This is the third such downlisting to occur on Mauritius in recent years due to the efforts of MWF. In 2000, Pink Pigeon *Nesoenas mayeri*, down to just nine birds a decade earlier, was downlisted to Endangered and now numbers 400 birds. Likewise, Mauritius Kestrel *Falco punctatus*, went from just four birds in 1974 and now numbers approximately 1,000 individuals. The news is of encouragement to those working in conservation within the BirdLife Partnership, once again proving that with adequate investment and trained people on the ground, threatened species do recover. According to Birdlife officials there are dedicated people across the world struggling to repeat this story for other species, but they need the resources to achieve this. Source: http://www.birdlife.org/news/pr/2007/09/iucn_red_list_2007.html

‘Birds of a feather can’t flock together’

Bird-Aircraft Hits

Sumit Dookia

Bombay Natural History Society

Bird strikes continue to cause concern to civil and defence aviation. According to an estimate, more than 50 accidents occur annually due to bird aircraft hits in India. Airports and air bases were originally constructed far from cities. Due to the growth of populated areas, the city limits have not only touched the airfields but in several cases spread beyond them, resulting in increased generation of garbage, filth, sewage and other waste matter. Experts are generally of the opinion that civic bodies do not maintain minimum standards of cleanliness laid down by regulatory bodies, in and around the airports and airbases. The causes of bird activity in and around the airfields can thus be easily attributed to the garbage from these urban areas coupled with the tree

cover, large open spaces and grasses in the airbases which provide good roosting, breeding and foraging grounds for birds, thus attracting them to airfields. As long as these attractants exist, birds will be a problem.

Bird activity is a menace to aircrafts especially during sunrise and sunset when bird activity is maximum. Raptors like kites and vultures pose problems during the hotter part of the day when they soar on the skies above the runways radiating hot air currents. A single bird hit leads to severe losses in terms of lives of civilians and aviation personnel alike besides loss of aviation infrastructure worth crores of rupees.

Bird strike hazards reoccur regularly at airports and require constant attention. No two airports are exactly alike. Accordingly, bird hazard varies

from airport to airport even when the same species are involved. The occurrence of birds at airports varies according to habitat availability, weather, season of the year and time of the day. Since every place has its own geographic and climatic conditions, which governs its bird life, strategies evolved to alleviate bird hazard are site specific. Possible deterrent steps to scare birds from airfields and local flying areas in the vicinity have proliferated over the years.

Before attempting to reduce bird hazard at an airport, it is important to assess the problem, identify contributing factors and analyze the threat to aircraft and human safety. A wildlife hazard management plan should be implemented to make the airport unattractive to birds. Scaring or



PIC: SAUNAK PAL

Red-wattled Lapwing *Vanellus indicus*

dispersing birds away from airports is usually difficult because birds are tenaciously attracted to available food, water and cover.

Birds react to unfamiliar sounds and objects. Automatic exploders or gas cannons, operated by acetylene, propane, or LP gas, produce a noise louder than a shotgun blast. Exploders can be set up and left to operate continuously, but for best results, the exploders should be operated for limited periods of time only, unless birds are moving into the airport. Exploders should be moved periodically so that the birds do not get habituated to the blasts. A shellcracker fires a projectile from a 12-gauge shotgun. It travels up to 90 m and explodes with a loud noise and a flash. Noise bombs are similar and can supplement shellcrackers, but their range is much shorter. Racket bombs are propelled by a special pistol and travel approximately upto 90 m; they do not explode. Shellcrackers and racket bombs may lose their effectiveness when used frequently. It may be necessary to use live ammunition to kill an occasional bird; permits from the concerned authority are required to kill protected species though. Remaining birds then become more responsive to the noise devices. The use of shooting to reinforce frightening techniques can be effective and should occur simultaneously with the scare devices often enough to maintain fear in the birds. In most cases, an integrated approach that incorporates several frightening devices will produce the best results.

Using lasers is a non-lethal, environmentally safe method of scaring. Lasers working under low light conditions are used to form a visual display of different shapes to deter nocturnal birds. Developed countries are already using this with satisfactory results.

Breeds of dogs like Border Collies-



PIC: ASAD R. RAHMAN

Cattle Egret *Bubulcus coromandus*

physically strong to cover large areas and hardworking have been used at aerodromes abroad to control birds and other wildlife such as wild pigs, deers, etc. This is however, labour-intensive, as the dogs need to be constantly trained. The cost of implementing a Border Collie programme is high involving the purchase, training and care of dogs and they might be no more effective than a human bird-controller.

Sudden bright flashes of light produce a startled response and drive away the birds. Although inexpensive to install and easy to relocate, the effectiveness of mirrors and reflectors as a bird scaring technique is variable since they are effective only in sunlight, thus rendering them useless before sunrise and after sunset. They are best combined with other methods of scaring.

Tapes as a scaring device act as a combination of visual and exclusion deterrence. Readily available and easy to install, reflecting tapes such as Mylar Tape™ have been used in attempts to deter birds in a number of

circumstances. It has a silver metal coating on one side that reflects sunlight and also produces a crackling noise when moved by the wind.

The areas between runways are covered with grass. These open areas can encourage feeding and resting by a number of bird species, which might be a hazard to aircrafts. Studies show that the height of the grass can influence the species and number of birds present. Birds such as lapwings, pigeons, doves, starlings and egrets do not prefer tall grass (15-20cm). Small mammal populations may also be encouraged by tall grasses, which, in turn, may attract predatory birds. Removal of roost structures can be used to encourage birds to leave the area where they cause damage.

Anti-perching devices like spikes, wires, gels, coils or point systems prevent birds from perching, roosting and nesting on surfaces and ledges. Installing a thin wire over the perch, which prevents the bird from landing, is probably the simplest method for shoulders of runways. Fixing mechanical spikes on all the perching sites near the runways is the best way of keeping birds away from the runway. Itching gels are often used on all possible perching sites to give a burning sensation to birds and have proved effective in making the areas bird free.

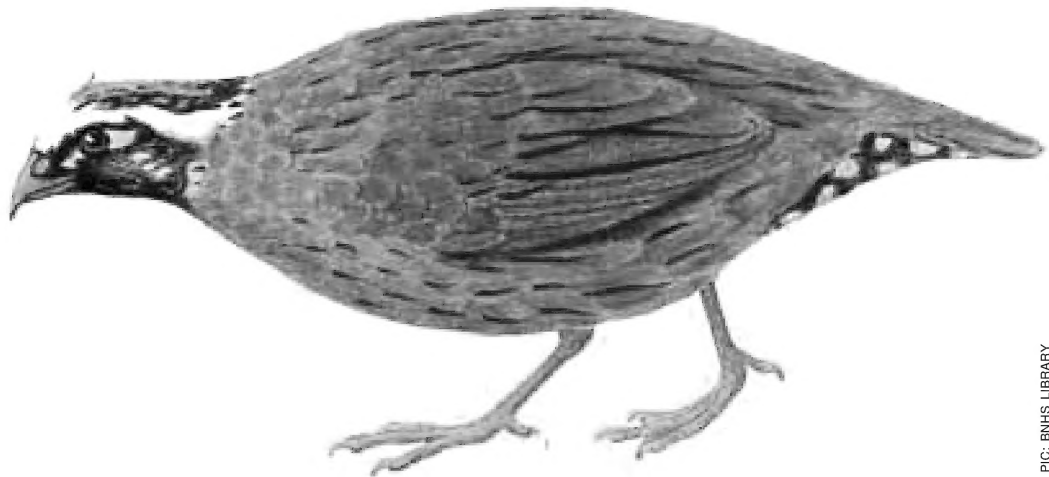
Removal of nests also acts as a bird-scaring device. In the nesting season of 'problem birds', movement of vehicles on the shoulders damages eggs of ground-nesting birds thus compelling them to leave the area.

Any bird deterring technique, whether used exclusively or in combination with other methods, is useful as long as the birds do not get habituated to it. Thus, bird deterring methods have to be implemented sporadically (to avoid habituation) and have to be constantly monitored for effective prevention of bird strikes.

SPECIES FACT SHEET

Critically Endangered

Himalayan Quail *Ophrysia superciliosa*



PIC: BNHS LIBRARY

Extremely rare and feared extinct for 131 years or so, the Himalayan Quail is a medium-sized Quail belonging to the Pheasant family. This species is known with certainty only from 2 locations in the western Himalayas in Uttarakhand.

25 cm. in size, it is a rather nondescript Quail with red bill and legs. The male is grayish overall, with black face and throat and white forehead and narrow supercilium. Female has dark-marked brown upperparts, buffish head-sides and underparts and contrasting dark mask and dark streaks on breast to vent. Its voice is a shrill whistle.

It was found in patches of tall grass ("high jungle grass", "tall seed-grass") and brushwood on steep hillsides, particularly the crests of south-facing slopes between 1,650 m and 2,400 m. Generally encountered in coveys of 6-12 birds, it was extremely elusive, never flying except when almost stepped on. It is unclear whether it was sedentary or a short-distance migrant. It was only recorded around Mussoorie and Naini Tal hill stations during the winter months, suggesting it may breed at higher altitudes. No significant information is available on its breeding habits. However, morphological and behavioural data suggest that it is not adapted to long-distance dispersal. Its short wings

(in comparison with the migratory Common Quail *Coturnix coturnix*) and weak flight indicate that it is a sedentary species. However, it is appropriate to consider even short-distance movements improbable, since the species could undertake gliding/walking elevational migrations in response to temperature.

Its food appears to have comprised mainly grass seeds and probably also insects, especially when young, and berries. Berry-bearing shrubs such as *Prinsepia utilis*, *Lonicera angustifolia*, *Berberis asiatica* and *Gerardiana heterophylla*, are speculated to have provided food for the species.

The species was last seen 60 years before independence, indicating hunting levels during the colonial period contributing significantly to its decline. Widespread land-use changes thereafter, particularly open cast mining for limestone and related disturbance, are other likely contributory factors to its decline. It is also hypothesized that habitat changes at lower elevations during the post-Pleistocene glaciation might have pushed subpopulations to suboptimal higher elevations, causing local extinctions.

Source: BirdLife International (2007) Species factsheet: *Ophrysia superciliosa*. Downloaded from <http://www.birdlife.org>



Bird Quiz

Are you 'bird brained'? Take Buceros' bird quiz and discover how much you know about the ornithological world...

Avian-terms: Guess a term for each of the following.

[Numbers in brackets = Number of letters in each word]

1. A term for a bird of prey. (6)
2. Female-like plumage acquired by males. (7)
3. Feathers are made up of this insoluble protein. (7)
4. Disease capable of transmission from birds to humans. (8)
5. The coat of feathers that birds display during the breeding season. (8,7)
6. Feathers that cover the openings of bird ears. (10)
7. Birds that feeds on seeds. (11)
8. A very young bird. (9)
9. Sleeping place of birds. (5)



Birdsearch: Search the bird in the maze with the help of clues given below

F	L	A	M	I	N	G	O	M	H
Q	W	P	D	U	Y	H	S	K	E
S	V	E	P	E	O	G	L	S	R
Q	N	L	P	C	U	C	K	O	O
E	K	I	Z	E	S	X	H	T	N
F	S	C	X	R	G	Q	A	L	W
L	L	A	S	H	R	I	K	E	Z
E	G	N	F	A	L	E	O	R	T
S	A	R	U	S	C	R	A	N	E

1. This bird holds its beak upside down while feeding.
2. This bird has a beak with a giant pouch that can hold upto 13L of water.
3. This bird was used to carry messages in ancient times.
4. This bird is also known as the butcher bird.
5. This is a long legged bird.
6. The feather of this bird breaks into powder.
7. This bird lays its eggs in other birds' nest.



AMAZING BIRD FACTS !!

- Raptors have a massive, sharp claw called talon used particularly for grasping, killing and tearing the prey.
- Chicks have a small horny projection at the tip of their upper mandible called egg tooth which they use to break through the eggshell.
- Birds store berries, seeds and other food items in the crevices of barks, under leaves, in cavities and the like, an activity called food caching.
- Based on its call, the Red Wattled Lapwing is sobriqueted - the 'did-you-do-it' bird !
- Along with many other living beings, birds eject partially digested food from the crop, mainly to feed their young ones. In other words, they regurgitate.

Answers to BIRD QUIZ

4. Zoonosis
8. Fledgling

7. Granivorous
3. Keratin

6. Auriculars
2. Eclipse

5. Breeding Plumage
1. Raptor

9. Roost

AVIAN-TERMS

S	A	R	U	S	C	R	A	N	E
E	G	N	F	A	L	E	O	R	T
L	L	A	S	H	R	I	K	E	Z
F	S	C	X	R	G	Q	A	L	W
E	K	I	Z	E	S	X	H	T	N
Q	N	L	P	C	U	C	K	O	O
S	V	E	P	E	O	G	L	S	R
Q	W	P	D	U	Y	H	S	K	E
F	L	A	M	I	N	G	O	M	H

THE SOCIETY'S PUBLICATIONS

	Non-Members	Members
1. The Book of Indian Birds by Sálím Ali, 13th edition	495.00	370.00
2. A Pictorial Guide to the Birds of the Indian Subcontinent by Sálím Ali & S. Dillon Ripley, 2nd edition	under revision	
3. A Guide to the Cranes of India by Prakash Gole	75.00	70.00
4. Birds of Wetlands and Grasslands by Asad R. Rahmani & Gayatri Ugra	500.00	375.00
5. Birds of Western Ghats, Kokan and Malabar by Satish Pande, Saleel Tambe, Clement Francis M. & Niranjan Sant	995.00	.750.00
6. Petronia by J.C. Daniel and Gayatri Ugra	360.00	270.00
7. The Book of Indian Animals by S.H. Prater, 3rd edition	275.00	210.00
8. A Week with Elephants — Proceedings of the Seminar on Asian Elephants, June 1993 Edited by J.C. Daniel & Hemant Datye	450.00	340.00
9. The Book of Indian Reptiles and Amphibians by J.C. Daniel	595.00	445.00
10. The Book of Indian Shells by Deepak Apte	295.00	225.00
11. The Book of Indian Trees by K.C. Sahni, 2nd edition	295.00	225.00
12. Some Beautiful Indian Climbers and Shrubs by N.L. Bor & M.B. Raizada, 2nd edition	525.00	390.00
13. Common Indian Wildflowers by Isaac Kehimkar	375.00	280.00
14. Illustrated Flora of Keoladeo National Park, Bharatpur by V.P. Prasad, Daniel Mason, Joy E. Marburger & C.R. Ajithkumar	695.00	520.00
15. Cassandra of Conservation Edited by J.C. Daniel	200.00	150.00
16. Important Bird Areas in India - Priority sites for conservation Compiled and edited by - M.Zafar-ul-Islam & Asad R. Rahmani	3000.00	2250.00
17. Uttar Bharat ke Pakshi (Hindi) by Richard Grimmett, Tim Inskipp and Satyapraksh Mehra	500.00	375.00
18. Uttar Bharat na Pakshiyo (Gujrati) by Richard Grimmett, Tim Inskipp and Sarita Sharma	500.00	375.00
19. Shumali Hindustan ke Parinde (Urdu) by Richard Grimmett, Tim Inskipp and M. Zafar-ul Islam	500.00	375.00
20. Threatened Birds of India Compiled by M. Zafar-ul Islam and Asad R. Rahmani	75.00	75.00
21. Field Methods for Bird Surveys by Salim Javed and Rahul Kaul	150.00	150.00
22. Indian Bird Banding Manual. Compiled by S. Balachandran-----	100.00	100.00
23. Birds of Sanjay Gandhi National Park by Sunjoy Monga	50.00	40.00
24. National Parks and Sanctuaries in Maharashtra, Vol. I & IIPratibha Pande	500.00	375.00
25. In Harmony with Nature by BNHS and RSPB by V. Shubhalaxmi, P. Mahajan, V.G. Gambhir, M. Joshi and M. Ansari	350.00	315.00
26. Treasures of Indian Wildlife by A S.Kothari & B F. Chappgar	1900.00	1200.00

BOMBAY NATURAL HISTORY SOCIETY

Founded in 1883 for the study of natural history, the Bombay Natural History Society (BNHS) is now one of the premier research and conservation organisations in the country. The Society publishes a journal, the Journal of the Bombay Natural History Society, devoted to natural history and also has a popular publication, Hornbill, for the layman. It has also published a number of books on wildlife and nature. Its library has a large collection of books and scientific journals on wildlife and the environment. The Society's invaluable collection of bird, mammal, reptile, amphibian, insect and plant specimens has been recognised as a National Heritage Collection.

Membership of the Society is open to individuals and institutions within India and abroad. For more details, please write to:

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